

2013 Lower Calcasieu River Vegetation Control Plan

LDWF, Inland Fisheries

Past Control Measures:

Biological:

In fall 2012, giant salvinia weevils were stocked at three release sites in infested backwater areas.

Chemical:

Traditional control measures for aquatic vegetation in this area involve using contact herbicides. In 2009, giant salvinia was discovered in the watershed and sprayers used diquat (0.75gal/acre) herbicide as a control. Plant problems and spray efforts are concentrated in the slack-water bays and canals.

Table 1. Historical treatment measures in lower Calcasieu River

Target Plants	Herbicide	Rate (gal/acre)	Treatments per year
Water Hyacinth Alligator Weed/Primrose Fragrant Water Lily Pennywort	2-4D	0.5	3
Common Salvinia Giant Salvinia Sedge	Imazapyr	0.5	7
	Diquat	0.75	
	Glyphosate	0.75	
	Imazamox	0.5	

Table 2. 2012 Application details for lower Calcasieu River

Total # of Treatments	Herbicide	Rate (gal/acre)
6	Glyphosate/Diquat	0.9
	Imazapyr/Glyphosate	0.75
	Imazamox/Glyphosate	0.75
	Imazapyr	0.5

Table 3. Acres treated by vegetation for lower Calcasieu River in 2012

Vegetation	Acres Treated
Salvinia Giant	72.2
Salvinia Common	16.4
Alligatorweed	13.1
Water Hyacinth	3.9
Pennywort	3.8
Maidencane	3.2
Knotweed	3.2
Cut grass	3.2
Total	119

*For reporting purposes, a treatment is defined as one crew for one day.

Physical:

During dry conditions, salinities can reach levels high enough to slow growth rates or kill plants in some areas.

Aquatic Vegetation Status:

Fall 2012

Common salvinia (100 acres)

Giant Salvinia (100 acres)

Alligator weed (550 acres)

Water Hyacinth (200 acres)

Estimated for fall 2013

Common salvinia (200 acres)

Giant Salvinia (200 acres, not including private property)

Alligator weed (250 acres)

Water Hyacinth (200 acres)

Limitations:

- Scar lakes, bays, and oxbows, with associated cypress, tupelo gum, button-bush, and willows, prevent necessary access for effective treatment.
- Private backwater swamps that connect to the river shelter aquatic plants and provide nursery grounds for perennial infestations.
- No draw down capabilities.
- Frequent natural transport/dispersal of plant material by animals and river flows.

Recommendations:

Biological Control

Continue LDWF weevil stocking efforts, including relocation of weevil infested material within the system. Continue public outreach efforts to get private landowners to utilize department weevil stocking program.

Chemical Control

Apply three treatments of Imazapyr (0.5 gal/acre) with appropriate surfactant to maintain control of water hyacinth, alligator weed, and primrose. Areas with greater than 75% hyacinth will be treated with 2,4-D (0.5gal/acre). Conduct 5 to 10 treatments of glyphosate (0.75 gal/acre)/diquat (0.25 gal/acre) mix including Aqua King Plus (0.25 gal/acre) and Thoroughbred (8 oz./acre) surfactants for giant and common salvinia control.

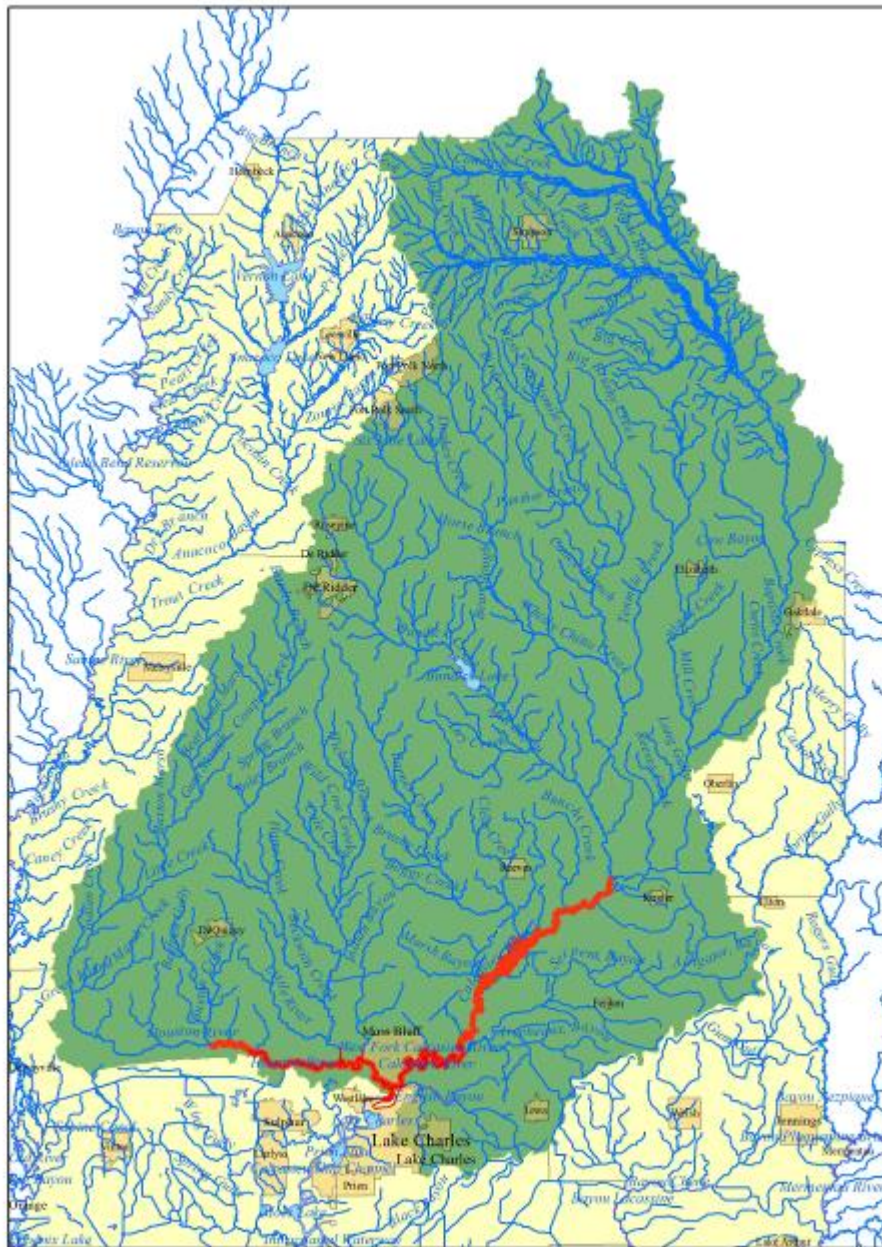


Figure 1. Map of the lower Calcasieu River and its watershed.